

TRANSLATION

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

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| Applicant's or agent's file reference 28161/WO/1 | FOR FURTHER ACTION | | See Form PCT/IPEA/416 |
| International application No. PCT/EP2004/011519 | International filing date (<i>day/month/year</i>) 14.10.2004 | Priority date (<i>day/month/year</i>) 03.11.2003 | |
| International Patent Classification (IPC) or national classification and IPC B62D21/11 B62D21/02 | | | |
| Applicant DAIMLERCHRYSLER AG | | | |
| <p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of 5 sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input checked="" type="checkbox"/> (<i>sent to the applicant and to the International Bureau</i>) a total of 2 sheets, as follows:</p> <p><input checked="" type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</p> <p><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</p> <p>b. <input type="checkbox"/> (<i>sent to the International Bureau only</i>) a total of (indicate type and number of electronic carrier(s)) _____, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p> <p>4. This report contains indications relating to the following items:</p> <p><input checked="" type="checkbox"/> Box No. I Basis of the report</p> <p><input type="checkbox"/> Box No. II Priority</p> <p><input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p><input type="checkbox"/> Box No. IV Lack of unity of invention</p> <p><input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p><input type="checkbox"/> Box No. VI Certain documents cited</p> <p><input type="checkbox"/> Box No. VII Certain defects in the international application</p> <p><input type="checkbox"/> Box No. VIII Certain observations on the international application</p> | | | |

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| Date of submission of the demand | Date of completion of this report |
| Name and mailing address of the IPEA/EP | Authorized officer |
| Facsimile No. | Telephone No. |

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International application No.
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Box No. I Basis of the report

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.

This report is based on translations from the original language into the following language _____, which is the language of a translation furnished for the purposes of:

 - international search (Rule 12.3 and 23.1(b))
 - publication of the international application (Rule 12.4)
 - international preliminary examination (Rule 55.2 and/or 55.3)
2. With regard to the elements of the international application, this report is based on (*replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report*):

the international application as originally filed/furnished
 the description:
 pages 1-25 _____ as originally filed/furnished
 pages* _____ received by this Authority on _____
 pages* _____ received by this Authority on _____
 the claims:
 nos. 3-25 _____ as originally filed/furnished
 nos.* _____ as amended (together with any statement) under Article 19
12.08.2005 with letter
 nos.* 1, 2 _____ received by this Authority on of 29.07.2005
 nos.* _____ received by this Authority on _____
 the drawings:
 sheets 1/10-10/10 _____ as originally filed/furnished
 sheets* _____ received by this Authority on _____
 sheets* _____ received by this Authority on _____
 a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.
3. The amendments have resulted in the cancellation of:

the description, pages _____
 the claims, nos. _____
 the drawings, sheets/figs _____
 the sequence listing (*specify*): _____
 any table(s) related to sequence listing (*specify*): _____
4. This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

the description, pages _____
 the claims, nos. _____
 the drawings, sheets/figs _____
 the sequence listing (*specify*): _____
 any table(s) related to sequence listing (*specify*): _____

* If item 4 applies, some or all of those sheets may be marked "superseded."

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Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

| | | | |
|-------------------------------|--------|------|-----|
| Novelty (N) | Claims | 1–25 | YES |
| | Claims | | NO |
| Inventive step (IS) | Claims | 1–25 | YES |
| | Claims | | NO |
| Industrial applicability (IA) | Claims | 1–25 | YES |
| | Claims | | NO |

2. Citations and explanations (Rule 70.7)

1. Document D1 is considered the prior art closest to the subject matter of claim 1. It discloses (the references between parentheses relate to D1):

a method for producing a vehicle component, in particular a chassis frame (10) of an all-terrain vehicle provided with a suspension strut mounting, wherein elongated, tubular, parallel hollow longitudinal support profiles (24, 26) arranged at a distance from each other in the horizontal plane are solidly connected to each other at their respective longitudinal support profile ends by tubular transverse hollow support profiles (36–48),

wherein a transverse member (46) in the shape of a hollow profile for receiving a rear axle, a differential and a suspension arm, and a further transverse member (40) in the shape of a hollow profile, which is at a distance from the first and holds a gear, is secured between the two end-side transverse hollow support profiles (36, 48) situated on the longitudinal hollow support profiles (24, 26), wherein the diameter and shape

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- Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- of the cross-section of the longitudinal hollow support profiles (24, 26) are largely deformed in the sense of an expansion by hydroforming, wherein receiving areas in the bodywork of the frame (10) are formed by the shaping of secondary form elements,
...
and wherein subsequently bearing seats of trailing arms as secondary form elements ... are perforated.
2. The subject matter of claim 1 therefore differs from the known method in that the secondary form elements are formed laterally out of the longitudinal hollow support profile by exerting a fluidic internal high pressure and the unperforated secondary form elements, which contain the lateral edge of the upper side of the relevant hollow longitudinal support profile, is crushed flat after deformation, in such a way that a radially protruding metal sheet fold is formed, and then undergo perforation, including vertical perforation.
- 2.1 The subject matter of claim 1 is therefore novel (PCT Article 33(2)).
3. The problem to be solved by the present invention is therefore understood to be that of ensuring the high strength of a continuous transition from the upper side of the longitudinal hollow support profile to the secondary form element.

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| Box No. V | Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement |
|-----------|---|
4. The solution to this problem, as proposed in claim 1 of the present application, involves an inventive step (PCT Article 33(3)), for the following reasons:
- 4.1 The formation of a continuous transition from the upper side of the longitudinal hollow support profile to the secondary form element is not known from or suggested by the available prior art.
5. Claims 2-25 are dependent on claim 1 and therefore likewise meet the PCT requirements for novelty and inventive step.
6. Industrial applicability in the field of vehicle manufacture is established.